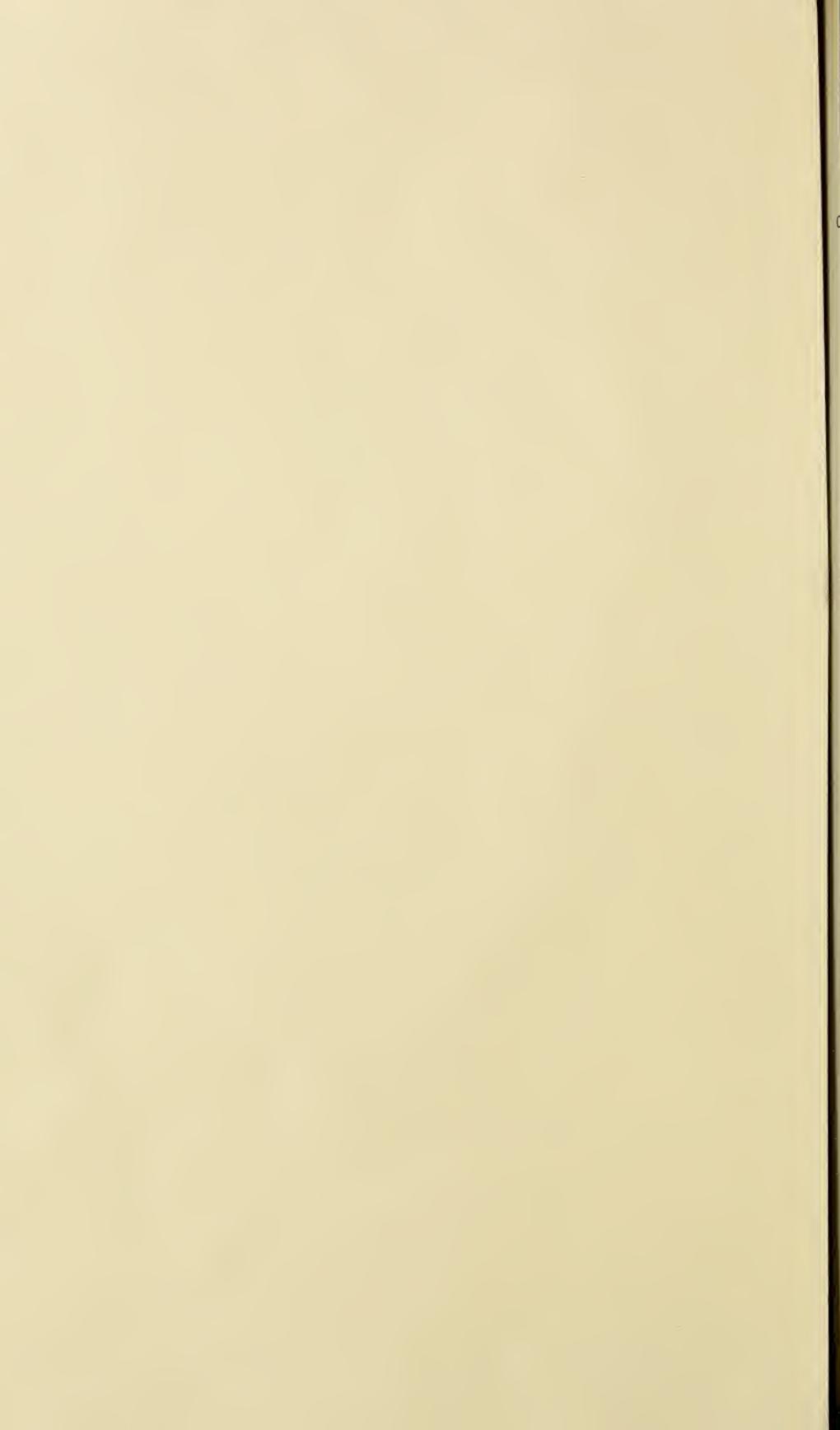


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United States Department of Agriculture,

DIVISION OF STATISTICS.

CEREAL CROPS OF 1896.

OFFICE OF THE STATISTICIAN,
Washington, D. C., March 23, 1897.

A report upon the "Cereal Crops of 1896," covering the quality and distribution of the corn, wheat, and oats grown in the United States during the past year, returns from elevator and mill correspondents, also an estimate of the wheat crop of the world and a report from our European agent upon the general farm conditions prevailing throughout the East, is herewith respectfully submitted for publication.

HENRY A. ROBINSON, *Statistician.*

Approved:

JAMES WILSON, *Secretary.*

DISTRIBUTION AND QUALITY OF THE CORN CROP OF 1896.

The crop of 1896 exceeded by more than 6 per cent that of 1895, the largest ever before obtained, in spite of a generally reduced acreage and of a partial failure of the crop in the South, where scarcely a State raised more than enough corn for its own consumption, Texas being the sorest sufferer. The great increases were in the great corn States. But the quality of this crop does not correspond to its quantity, for but 84.8 per cent is this year merchantable, against 88.1 per cent last year. The general average is reduced somewhat by the section just mentioned, and more by the low figure reported for Iowa, the largest producing State, where much of the grain rotted in the shock. Late rains have also to answer for much soft corn in other States.

The farm value is unprecedentedly low. The average price of the 1,936,206,000 bushels of merchantable corn is but 20.8 cents, against 25.6 cents last year (the lowest previous figure), giving a total value of \$402,986,000, while the unmerchantable 347,669,000 bushels, at a price of 13.3 cents, against 15.4 cents for 255,433,000 bushels last year, is worth in all \$46,290,000. The entire crop comes to \$449,276,000, a figure less by \$41,731,000 than that reported in December. Some diminution of total value is usually found in the March returns, but so large a difference, 8.4 per cent of the price first reported, is not often encountered. It furnishes a striking proof of the continued depression of the corn market. The low price has induced farmers, particularly in the West, to feed more to cattle, hogs, and poultry. Consumption by distilleries is thought in a few States to sustain the demand in some measure.

An increased use of the grain for fuel where other fuel is scarce is also reported; but large amounts are held in cribs by farmers and middlemen, awaiting better prices. The reported stocks in producers' hands this year (1,164,000,000 bushels) are not only 8.6 per cent greater than the greatest ever reported, those for 1895, but form a higher percentage of the crop, being 51 per cent of the crop, against 49.8 per cent last year. The proportion sold beyond county lines is 27.3 per cent, against 21.9 per cent reported in March, 1896, and 13.4 per cent in March, 1895. The highest percentages are given by Nebraska, Illinois, and Kansas—second, third, and fourth on the list of producers. Iowa also exceeds the average in exports from the producing county.

Disposal of the corn crop of 1896.

States and Territories.	Crop of 1896.	Stock on hand Mar. 1, 1897.		Retained and consumed in county where grown.		Shipped out of county where grown.		Merchantable.	
	Bushels.	Bushels.	P. ct.	Bushels.	P. ct.	Bushels.	P. ct.	Bushels.	P. ct.
Maine.....	546,860	164,058	30	541,391	99	5,469	1	426,551	78
N. Hampshire	1,161,720	406,602	35	1,161,720	100	0	0	1,033,931	89
Vermont	1,994,322	817,672	41	1,994,322	100	0	0	1,735,060	87
Massachusetts	1,845,560	627,490	34	1,845,560	100	0	0	1,605,637	87
Rhode Island	300,832	141,391	47	285,790	95	15,042	5	264,732	88
Connecticut	1,773,004	656,011	37	1,737,544	98	35,460	2	1,489,323	84
New York.....	17,892,738	8,051,732	45	17,355,956	97	536,782	3	14,493,118	81
New Jersey	9,325,338	4,103,149	44	8,392,804	90	932,534	10	8,299,551	89
Pennsylvania	52,475,000	23,613,750	45	46,178,000	88	6,297,000	12	45,128,500	86
Delaware	4,933,676	2,466,838	50	3,206,889	65	1,726,787	35	4,341,635	88
Maryland	19,936,128	9,170,619	46	13,157,844	66	6,778,284	34	17,344,431	87
Virginia	38,067,986	17,891,953	47	31,977,108	84	6,090,878	16	31,977,108	84
North Carolina	29,504,148	13,276,867	45	27,733,899	94	1,770,249	6	23,898,360	81
South Carolina	15,781,374	8,048,501	51	15,465,747	98	315,627	2	14,045,423	89
Georgia	32,829,654	16,414,827	50	31,516,468	96	1,313,186	4	27,905,206	85
Florida	4,860,940	1,944,376	40	4,569,284	94	291,656	6	3,791,533	78
Alabama	32,445,075	14,924,734	46	30,822,821	95	1,622,254	5	26,604,962	82
Mississippi	27,973,390	12,308,292	44	27,134,188	97	839,202	3	23,497,648	84
Louisiana	15,563,030	4,980,810	32	15,253,729	98	311,301	2	21,673,772	75
Texas	32,228,617	6,123,437	19	31,261,758	97	966,859	3	18,048,026	56
Arkansas	29,723,854	9,214,395	31	29,426,615	99	297,239	1	19,617,744	66
Tennessee	71,893,446	30,195,247	42	60,390,495	84	11,502,951	16	61,109,429	85
West Virginia	21,689,160	9,109,447	42	19,520,244	90	2,168,916	10	18,002,003	83
Kentucky	80,932,348	36,419,557	45	72,839,113	90	8,093,235	10	67,983,172	84
Ohio	123,691,957	61,845,978	50	87,821,289	71	35,870,668	29	110,085,842	89
Michigan	40,041,930	18,819,707	47	35,236,898	88	4,805,032	12	34,436,060	86
Indiana	133,468,265	69,403,498	52	90,758,420	68	42,709,845	32	122,790,804	92
Illinois	284,572,764	156,515,020	55	159,360,748	56	125,212,016	44	261,806,943	92
Wisconsin	38,890,071	17,111,631	44	36,167,766	93	2,722,305	7	31,500,958	81
Minnesota	34,446,974	15,501,138	45	32,035,686	93	2,411,288	7	26,524,170	77
Iowa	321,719,541	193,031,725	60	228,420,874	71	93,298,667	29	231,638,070	72
Missouri	176,768,649	83,081,265	47	152,021,038	86	24,747,611	14	148,485,665	84
Kansas	247,734,004	121,389,662	49	165,981,783	67	81,752,221	33	227,915,284	92
Nebraska	298,599,638	176,173,786	59	146,313,823	49	152,285,815	51	265,753,678	89
South Dakota	31,136,950	18,682,170	60	26,155,938	84	4,981,912	16	25,220,930	81
North Dakota	974,540	243,635	25	964,795	99	9,745	1	682,178	70
Montana	34,606	6,921	20	34,606	100	0	0	27,685	80
Wyoming	62,075	31,038	50	57,730	93	4,345	7	40,349	65
Colorado	2,852,928	713,232	25	2,767,340	97	85,588	3	2,196,755	77
New Mexico	388,160	124,211	32	364,870	94	23,290	6	333,818	86
Arizona			30		90		10		87
Utah	216,250	54,062	25	207,600	96	8,650	4	157,802	73
Nevada			30		85		15		85
Idaho			22		100		0		82
Washington	95,452	19,090	20	87,816	92	7,636	8	81,184	85
Oregon	297,638	35,717	12	285,732	96	11,906	4	229,181	77
California	2,202,573	559,643	25	1,806,110	82	396,463	18	1,982,316	90
Oklahoma			29		84		16		78
Total.....	2,283,875,165	1,164,405,834	51,01	660,619,251	72,7	623,255,914	27,3	1,936,206,537	84,8

The following table shows for nine years the exports of corn (including meal) for the seven months July to January, with the mean export value for the entire fiscal year. The year noted is that to which the crop belongs.

Year.	Export.	Price.	Year.	Export.	Price.
	Bushels.	Cents.		Bushels.	Cents.
1888	32,270,587	47.4	1893	39,079,689	46.2
1889	43,191,766	41.8	1894	10,504,555	53.5
1890	20,842,909	57.4	1895	55,278,158	38.1
1891	33,780,470	55.1	1896	87,136,186
1892	24,472,873	53			

In the table below the distribution of the corn crop of 1896 is compared with that of ten years preceding, no allowance for supply carried from year to year being attempted. The amount consumed or distributed each year is much more nearly uniform than that on hand March 1:

Year.	Product of year preceding.	On hand March 1.	Per cent.	Consumed or distributed.
	Bushels.	Bushels.	Bushels.	
1887	1,665,000,000	603,000,000	36.2	1,062,000,000
1888	1,456,000,000	508,000,000	34.9	948,000,000
1889	1,988,000,000	787,000,000	39.6	1,201,000,000
1890	2,113,000,000	970,000,000	45.9	1,143,000,000
1891	1,490,000,000	542,000,000	36.4	948,000,000
1892	2,060,000,000	360,000,000	41.8	1,200,000,000
1893	1,628,000,000	627,000,000	38.5	1,020,000,000
1894	1,619,000,000	586,000,000	36.2	1,033,000,000
1895	1,213,000,000	476,000,000	39.2	737,000,000
1896	2,151,000,000	1,072,000,000	49.8	1,079,000,000
1897	2,284,000,000	1,164,000,000	51.0	1,120,000,000

The quality of the corn crop for eleven years, 1886 to 1896, inclusive, is shown in the table below. In the percentage merchantable five earlier years exceed 1896 and five fall short:

Year.	Merchantable.	Unmerchantable. <i>a</i>				
		Bushels.	P. ct.	Bushels.	P. ct.	
1886	1,438,446,830	86	226,994,170	14		
1887	1,222,186,360	84	233,994,640	16		
1888	1,637,405,930	82.4	350,384,070	17.6		
1889	1,810,557,850	85.7	302,334,150	14.3		
1890	1,183,794,720	79.5	306,175,280	20.5		
1891	1,822,430,570	88.5	237,223,430	11.5		
1892	1,345,444,720	82.6	283,019,280	17.4		
1893	1,386,356,820	85.6	233,137,180	14.4		
1894	999,402,380	82.4	213,367,620	17.6		
1895	1,895,705,630	88.1	255,433,370	11.9		
1896	1,936,206,000	84.8	347,069,000	15.2		

a Reports from some of the principal corn States show that this condition "unmerchantable" is due to an excess of moisture in the grain, and in such case the condition is remediable by drying out the grain.

DISTRIBUTION OF THE WHEAT CROP OF 1896.

The increase in price which began in the fall of 1896 so stimulated sales that many parts of the country are now left with only sufficient for seed. All sections report an exceptionally small percentage on hand, the general average being 20.6 per cent, against 26.3 last year, and showing but 88,000,000 bushels in farmers' hands March 1. Unusually little of the crop of 1895 remains—but 3 per cent, against 4.7 per cent of the 1894 crop so held a year ago. Weather conditions were throughout unfavorable, for the drought which prevailed from beginning to end of the growing season was followed in many States by heavy rains at

harvest time, or while the grain was in shock, or when it came to be thrashed; hence the yield was generally short and the quality of the crop impaired; hence, also, a larger proportion than usual must be retained for home consumption. The average percentage so retained is 48.3, against 41.5 last year, when the inducements to export were weaker. The weight per bushel is generally reduced, being 57.1 pounds on the average, against 57.6 pounds last year. The lowest State average, 54 pounds, is for Ohio—always a large, and sometimes our largest, wheat State. Though Ohio suffered worse from adverse weather conditions, other States in its neighborhood, from Kentucky and Indiana west to Kansas, were similarly affected. Quality of grain poor, also, in the spring-wheat States; quite satisfactory, however, in California.

Disposal of the wheat crop of 1896.

States and Territories.	Crop of 1896.	Stock on hand Mar. 1, 1897.	Consumed in county where grown.	Shipped out of county where grown.	Weight per bushel.	Bushels of 60 pounds.		
	<i>Bushels.</i>	<i>Bushels.</i>	<i>P. ct.</i>	<i>Bushels.</i>	<i>P. ct.</i>	<i>Bushels.</i>	<i>P. ct.</i>	<i>Pounds.</i>
Maine.....	170, 940	73, 504	43	170, 940	100	0	0	58 165, 242
New Hampshire.....	51, 387	15, 416	30	51, 387	100	0	0	56 47, 961
Vermont.....	205, 972	74, 150	36	205, 972	100	0	0	60 205, 972
Massachusetts.....								
Rhode Island.....								
Connecticut.....								56
New York.....	6, 349, 968	2, 222, 489	35	4, 000, 480	63	2, 349, 488	37	58 6, 138, 302
New Jersey.....	1, 555, 260	404, 368	26	1, 353, 076	87	202, 184	13	60 1, 555, 260
Pennsylvania.....	17, 737, 286	5, 321, 186	30	13, 302, 964	75	4, 434, 322	25	58 17, 146, 043
Delaware.....	1, 758, 816	586, 940	22	756, 291	43	1, 002, 525	57	59 1, 729, 692
Maryland.....	7, 878, 769	1, 575, 754	20	3, 151, 508	65	4, 727, 261	60	58 7, 616, 143
Virginia.....	5, 724, 913	1, 202, 232	21	3, 944, 948	60	2, 289, 965	40	58 5, 543, 084
North Carolina.....	4, 621, 922	1, 155, 480	25	4, 483, 264	97	138, 658	3	58 4, 467, 858
South Carolina.....	957, 902	143, 685	15	957, 902	100	0	0	59 941, 937
Georgia.....	1, 698, 872	305, 977	18	1, 648, 876	97	50, 996	3	58 1, 643, 210
Florida.....								
Alabama.....	394, 184	55, 186	14	382, 358	97	11, 826	3	56 367, 905
Mississippi.....	37, 927	7, 965	21	37, 927	100	0	0	57 36, 031
Louisiana.....								
Texas.....	4, 529, 210	543, 505	12	4, 076, 289	90	452, 921	10	56 4, 227, 263
Arkansas.....	1, 260, 720	277, 358	22	1, 147, 255	91	113, 465	9	57 1, 197, 684
Tennessee.....	6, 628, 462	1, 325, 692	20	4, 308, 500	65	2, 319, 962	35	57 6, 297, 039
West Virginia.....	4, 056, 511	1, 095, 258	27	3, 042, 383	75	1, 014, 128	25	58 3, 921, 294
Kentucky.....	6, 976, 861	1, 046, 529	15	4, 395, 422	63	2, 581, 439	37	56 6, 511, 737
Ohio.....	21, 800, 016	5, 014, 004	23	14, 606, 011	67	7, 194, 005	33	54 19, 620, 014
Michigan.....	15, 719, 898	3, 772, 776	24	6, 916, 755	44	8, 803, 143	56	58 15, 195, 901
Indiana.....	20, 647, 440	3, 510, 065	17	11, 562, 566	56	9, 084, 874	44	56 19, 720, 944
Illinois.....	23, 668, 146	4, 580, 903	16	14, 334, 073	59	11, 334, 073	50	56 26, 756, 936
Wisconsin.....	8, 898, 950	3, 025, 643	34	7, 208, 150	81	1, 690, 800	19	55 8, 157, 371
Minnesota.....	46, 599, 061	12, 115, 756	26	15, 843, 681	34	30, 755, 380	66	56 43, 492, 457
Iowa.....	11, 473, 152	3, 556, 677	31	7, 228, 086	63	4, 245, 066	37	57 10, 899, 494
Missouri.....	16, 594, 473	2, 821, 060	17	9, 126, 960	55	7, 467, 513	45	56 15, 488, 175
Kansas.....	30, 794, 452	4, 927, 112	16	15, 397, 226	50	15, 397, 226	50	59 28, 741, 489
Nebraska.....	19, 390, 602	5, 429, 369	28	9, 695, 301	50	9, 695, 301	50	57 18, 097, 895
South Dakota.....	27, 583, 450	7, 447, 532	27	8, 275, 035	30	19, 308, 415	70	57 28, 204, 278
North Dakota.....	29, 848, 501	5, 372, 130	18	6, 566, 670	22	23, 281, 831	78	56 28, 356, 078
Montana.....	1, 204, 240	240, 848	20	1, 047, 689	87	156, 551	13	56 1, 123, 957
Wyoming.....	224, 126	71, 720	32	201, 713	90	22, 413	10	62 231, 597
Colorado.....	2, 797, 182	559, 436	20	1, 762, 225	63	1, 034, 957	37	59 2, 750, 562
New Mexico.....	818, 097	171, 800	21	719, 925	88	98, 172	12	58 790, 872
Arizona.....	333, 500	66, 700	20	296, 815	89	36, 685	11	60 333, 500
Utah.....	2, 803, 753	841, 126	30	1, 514, 027	54	1, 289, 726	46	60 2, 803, 753
Nevada.....	180, 030	28, 805	16	149, 425	83	30, 605	17	58 174, 029
Idaho.....	2, 404, 112	528, 905	22	961, 645	40	1, 442, 467	60	59 2, 364, 013
Washington.....	8, 358, 192	919, 401	11	2, 507, 458	30	5, 850, 734	70	60 8, 358, 192
Oregon.....	10, 247, 141	1, 537, 071	15	3, 688, 971	36	6, 558, 170	64	59 10, 076, 355
California.....	45, 097, 195	4, 058, 748	9	14, 431, 102	32	30, 666, 093	68	60 45, 097, 195
Oklahoma.....	2, 601, 755	312, 211	12	1, 509, 018	58	1, 092, 737	42	59 2, 558, 392
Total.....	427, 684, 346	88, 149, 072	20. 6	206, 458, 269	48. 3	221, 226, 077	51. 7	57. 1 406, 693, 898

DISTRIBUTION OF THE OATS CROP OF 1896.

The crop was generally poor, both in quantity and quality, and the weight per bushel (28.6 pounds on the average) was low. But three or four States, mostly northeastern, report a good crop. Injuries resulted from many causes, the more important being drought during the early summer and heavy rains about harvest time, in addition to the usual insect and other pests. Prices are generally reported low. In many places the grain was not thrashed, but fed in the straw. The quantity available for shipment is therefore not large.

Disposal of the oats crop of 1896.

States and Territories.	Crop of 1896.	Stock on hand Mar. 1, 1897.	Consumed in county where grown.	Shipped out of county where grown.	Weight per bushel.	Bushels of 32 pounds.
	<i>Bushels.</i>	<i>Bushels.</i>	<i>P. ct.</i>	<i>Bushels.</i>	<i>P. ct.</i>	<i>Pounds.</i>
Maine.....	5,869,880	2,758,844	47	5,517,687	94	352,193
New Hampshire.....	1,160,558	417,801	36	1,148,952	99	11,606
Vermont.....	4,716,306	2,310,990	49	4,669,143	99	47,163
Massachusetts.....	549,864	109,973	20	549,864	100	0
Rhode Island.....	112,950	48,568	43	111,820	99	1,130
Connecticut.....	641,016	243,586	38	641,016	100	0
New York.....	49,916,064	26,954,675	54	45,423,618	91	4,492,446
New Jersey.....	3,620,490	1,810,245	50	3,149,826	87	470,664
Pennsylvania.....	36,086,821	16,960,806	47	31,395,534	87	4,691,287
Delaware.....	548,071	208,267	38	460,380	84	87,691
Maryland.....	2,040,192	612,058	30	1,550,546	76	489,646
Virginia.....	8,492,296	3,142,150	37	7,388,298	87	1,103,998
North Carolina.....	5,777,256	1,444,314	25	5,430,621	94	346,635
South Carolina.....	2,954,798	295,480	10	2,895,702	98	59,096
Georgia.....	5,085,288	1,017,058	20	4,983,582	98	101,706
Florida.....	549,732	109,946	20	527,743	96	21,989
Alabama.....	4,454,870	801,877	18	4,365,773	98	89,097
Mississippi.....	1,599,273	223,898	14	1,567,288	98	31,985
Louisiana.....	345,450	17,272	5	345,450	100	0
Texas.....	12,668,865	2,027,018	16	10,895,220	86	1,773,640
Arkansas.....	5,075,456	1,167,355	23	5,024,701	99	50,755
Tennessee.....	7,205,418	2,233,680	31	6,124,605	85	1,080,813
West Virginia.....	3,847,872	1,462,191	38	3,655,478	95	192,394
Kentucky.....	10,515,981	3,785,753	36	9,404,383	90	1,051,598
Ohio.....	32,553,689	14,649,160	45	24,415,267	75	8,138,422
Michigan.....	30,079,260	13,234,874	44	21,055,482	70	9,023,778
Indiana.....	34,433,237	12,395,965	36	23,758,934	69	10,674,303
Illinois.....	84,581,952	36,370,239	43	38,061,878	45	46,520,074
Wisconsin.....	63,257,675	32,628,838	50	46,985,526	72	18,272,149
Minnesota.....	56,766,336	28,950,831	51	41,439,425	73	15,326,911
Iowa.....	105,641,855	46,651,672	47	64,441,532	61	41,200,323
Missouri.....	19,850,490	7,146,176	36	17,468,431	88	2,382,059
Kansas.....	23,808,759	8,004,978	34	19,999,353	84	3,809,401
Nebraska.....	34,092,631	18,750,947	55	24,887,621	73	9,205,010
South Dakota.....	17,957,445	10,056,169	56	14,904,679	83	3,052,766
North Dakota.....	11,238,788	5,169,842	46	10,227,297	91	1,011,491
Montana.....	3,050,770	1,281,323	42	2,288,078	75	762,692
Wyoming.....	417,312	150,232	36	383,927	92	33,385
Colorado.....	2,600,724	988,275	38	1,820,507	70	780,217
New Mexico.....	221,157	101,732	46	110,579	50	110,578
Arizona.....	958,132	411,997	43	641,948	67	316,184
Utah.....						33
Nevada.....						37
Idaho.....	1,302,168	572,954	44	833,388	64	468,780
Washington.....	3,017,772	754,443	25	1,569,241	52	1,448,531
Oregon.....	3,854,319	925,037	24	2,698,023	70	1,156,296
California.....	1,827,171	365,434	20	1,425,193	78	401,978
Oklahoma.....						28
Total.....	707,346,404	312,814,923	44.2	516,703,544	73.0	190,642,860
						27.0
						28.6 631,789,258

RETURNS FROM MILL AND ELEVATOR CORRESPONDENTS.

To its list of regular correspondents the Division of Statistics has recently added several thousand millers and owners of smaller grain elevators, whose answers to questions referred to them by the Statistician from time to time have been of considerable service in making up his monthly reports. If the list had been complete and there had been any practicable way of obtaining answers from every addressee, reports from these millers and elevator owners as to actual amounts of grain received and held by them would have been final evidence as to the product of the country, particularly in the case of wheat; but experience has shown that in returns of this kind even an approximation to completeness can not be expected. The new correspondents have, however, been very ready to furnish answers to questions of the form used by the division for its crop correspondents generally, giving estimates of the acreage or amount of grain in their respective counties as a percentage of last year's breadth, or of the last crop; and such answers as these assisted the Statistician in no slight measure, last summer, in arriving at a conclusion with regard to the wheat acreage for 1896.

In view, however, of the peculiar opportunities enjoyed by this class of observers for forming good judgments of stocks of grain held by farmers as well as by millers, especial pains were taken to collect their estimates in preparing the present report. They were asked to report as to corn, wheat, and oats in farmers' hands March 1, in the form of percentages, both of last year's crops and of the stock so held a year before; and they were also asked to estimate the stock of wheat held by the mills and smaller elevators of their respective counties in corresponding percentages. It was hoped by this last question to obtain some indication of the amount of "intermediate" wheat in the country, namely, what is in mills unground, in granaries and elevators at minor points (excluding the eighteen principal points whose stores form the "visible supply"), and in transit by train or boat to or from such points.

A large proportion of the millers' returns were unfortunately unavailable, the questions having been presented in such a form as to be misunderstood by many who were obviously at considerable pains to give such information as they believed to have been desired of them. Consequently the number of answers was disappointingly short from some important wheat States: California, ranking second in order of production, sending but ten reports that could be used, and the Dakotas, ranking fourth and sixth, respectively, sending but eighteen each, out of a number for the whole country exceeding one thousand. The other leading States, down to the thirteenth in order, including all that produced more than 11,000,000 bushels in 1896, were quite fully and satisfactorily represented.

The returns from three large milling establishments in Minneapolis, with correspondents and branches widely distributed through Minnesota and the Dakotas, seem worthy of separate record, because it is believed that they were based on more than usual knowledge of the subject. All three related to those three important spring-wheat States as a whole, all were made for wheat alone, and, though obviously independent, their widest divergence in any reported percentage was 5 per cent. In the subjoined statement are shown, in order, (1) the weighted mean of the percentages for the three States as derived from the consolidated returns from all the correspondents of this division, (2) the corresponding weighted means derived from the millers' returns above

explained (107 in number from the three States), and (3) the mean from the three Minneapolis returns just spoken of. The comparison is of service in showing the degree of agreement and the degree of difference in these totally independent returns.

In Minnesota, South Dakota, and North Dakota.	Percentages.		
	First.	Second.	Third.
Part of 1896 crop held Mar. 1, 1897:			
By farmers.....	24	19	17
In mills and minor elevators.....		11	12
Ratio held Mar. 1, 1897, to that held Mar. 1, 1896:			
By farmers.....	64	68	47
In mills and minor elevators.....		62	61

The comparison of grain in farmers' hands March 1 with the stock so held a year earlier, in the millers' returns, gives an average percentage of 132.7 for corn, 67.9 for wheat, and 104.9 for oats. The farmers' stocks of 1,072,000,000 bushels corn and 123,000,000 bushels wheat reported last March would give with these percentages 1,423,000,000 bushels corn and 84,000,000 bushels wheat this year. Reversing the calculation and using the 1,164,000,000 bushels corn, 88,000,000 bushels wheat, and 313,000,000 bushels oats reported this year, we obtain values of 877,000,000 bushels corn, 130,000,000 bushels wheat, and 298,000,000 bushels oats for the stocks held last year at the same date. The last of these figures may perhaps be adopted as an approximate statement of a quantity for which the Department has no other report to give; the others are interesting only for purposes of comparison.

The millers' returns of grain in farmers' hands as percentages of the crop of 1896, and of grain in mills, etc., as percentages and in bushels, appear by States and Territories in the table below, the amounts held in mills March 1, 1896, as calculated from the amounts so held in 1897, and the ratio per cent of 1897 to 1896 being added in the last two columns. Ten States and Territories, of minor importance as wheat producers, furnish no reports of these amounts. For them a fixed average percentage is taken as an approximation. The percentages adopted in the foregoing part of this report are entered in the columns preceding the millers' returns of the like percentages.

It will be observed that the miller correspondents show a prevailing tendency to credit their counties with larger corn supplies and smaller supplies of other grains than the correspondents of the Department generally. Taking the States and Territories in detail, the millers' corn percentages are higher in 22 cases and lower in 9; wheat percentages higher in 2 cases and lower in 30; oat percentages higher in 7 cases and lower in 23. Their average corn percentage is 3.8 higher, an excess of 87,000,000 bushels, making a total farmers' stock of 1,251,000,000 bushels; their average wheat percentage is 6.1 lower, a deficiency of 26,000,000 bushels, leaving a total farmers' stock of 62,000,000 bushels; their oat percentage is 7 lower, a deficiency of 50,000,000 bushels, leaving a total farmers' stock of 263,000,000 bushels. These results are given for comparison, those previously given being preferred. It is quite probable that many of the Department's mill and elevator correspondents, in their understanding of the questions, estimated only for smaller grains the supplies likely to come to mill, not including what was retained for spring seeding, etc.; also, that they included in corn held by farmers a large stock held by middlemen. In those cases a very good answer to the question as they understood it

would be an unsatisfactory answer to the question actually proposed to them.

As to the supply in mills and minor elevators, the figures below published form the first attempt of this Department to reach an estimate. The State averages are reported as calculated from the returns, notwithstanding the evident excess of some of them and insufficiency of others; but since those evident excesses and insufficiencies belong only to the less important States, the final result may be accepted as probably not far from the truth, especially as the point is one on which mill and elevator owners are likely to be exceptionally well informed. If the percentages supplied by the same correspondents from which the mill stocks held in March, 1896, are calculated are equally trustworthy, we can conclude that the diminution of "intermediate" wheat in the twelve months amounted to 26,000,000 bushels. In the same time the "visible" supply fell off 20,000,000 and the farmers' stocks 35,000,000 bushels.

Adopting these figures for millers' stocks, the supply and distribution for wheat for the year beginning March 1, 1896, will balance, as follows, amounts being stated in millions of bushels:

<i>Supply.</i>	<i>Distribution.</i>
Reserve in farmers' hands, March, 1896.....	123
Reserve in mills, etc., March, 1896.....	67
Reserve visible stock, March, 1896.....	64
 Reserve aggregate, March, 1896, 254	
Crop harvested, 1896.....	428
 Total supply	682
	 Reserve in farmers' hands, March, 1897.....
	88
	Reserve in mills, etc., March, 1897.....
	41
	Reserve visible stock, March, 1897.....
	44
	 Reserve aggregate, March, 1897, 173
	Spring and winter seeding, 1896.....
	50
	Food consumption, 1896-97.....
	310
	Exports, 1896-97.....
	149
	 Total distribution.....
	682

In this computation the amount needed for seed is calculated at $1\frac{2}{5}$ bushels per acre, and the food consumption of 71,600,000 inhabitants at $4\frac{1}{3}$ bushels per annum per capita. It is not improbable that the continuing business depression, combined with an extraordinary abundance and cheapness of corn, has had its effect in a more than usual substitution of the latter grain for wheat, in the period here considered, so that an average of $4\frac{1}{3}$ bushels for all classes of the population throughout the country may be not too low.

The supply of 173,000,000 bushels will have to meet, before the crop of 1897 comes to reinforce it about the beginning of July, demands of about 17,000,000 bushels for spring seeding and 104,000,000 bushels for four months' food consumption, at the rates above used. It is quite likely, owing to the increase in the cost of wheat and the further decrease in that of corn, that the rate of wheat consumption per capita may be still further reduced this season; but, taking these amounts as they stand, we are left with a supply of 52,000,000 bushels for export and for balance to be carried over. The exports for March to June, inclusive, were last year less than 36,000,000 bushels, and they averaged for the first nine weeks of the present year, notwithstanding the higher price, 500,000 bushels per week less than for the corresponding weeks of last year. If the same difference holds till July the exports for the four months will be 27,000,000, and the stocks remaining on farms, in mills, and "visible," will be but 25,000,000 bushels, an exceptionally slender balance. In any event, the new crop year will certainly begin with a nearer approach to clean granaries than the country has known since 1891.

Grain stocks on hand March 1, 1897, by millers' returns.

States and Territories.	Part of crop in farmers' hands.						Wheat in mills and minor elevators.			
	Reported above.			Reported by millers.			Held Mar. 1, 1897.		Held Mar. 1, 1896.	
	Corn.	Wheat	Oats.	Corn.	Wheat	Oats.	Part of 1896 crop.	Total stock.		
Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Bushels.	Per ct.	Bushels.	
Maine	30	43	47	-----	-----	-----	*10	17,094	*62	27,571
New Hampshire	35	30	36	-----	-----	-----	*10	5,139	*62	8,289
Vermont	41	36	49	-----	-----	-----	*10	20,597	*62	33,221
Massachusetts	34	-----	20	5	-----	-----	-----	-----	-----	-----
Rhode Island	47	-----	43	-----	-----	-----	-----	-----	-----	-----
Connecticut	37	-----	38	40	-----	55	-----	-----	-----	-----
New York	45	35	54	55	34	51	10	634,997	70	907,139
New Jersey	44	26	50	60	40	50	10	155,526	90	172,807
Pennsylvania	45	30	47	49	25	48	10	1,773,729	71	2,498,210
Delaware	50	22	38	50	-----	-----	*10	175,882	*62	283,681
Maryland	46	20	30	51	16	20	8	630,302	87	724,485
Virginia	47	21	37	54	15	27	9	515,242	106	486,077
North Carolina	45	25	25	48	12	6	1	46,219	34	135,938
South Carolina	51	15	10	0	0	-----	0	0	-----	0
Georgia	50	18	20	54	15	18	10	169,987	110	154,584
Florida	40	-----	20	-----	-----	-----	-----	-----	-----	-----
Alabama	46	14	18	55	5	25	1	3,942	115	3,428
Mississippi	44	21	14	-----	-----	-----	*10	3,793	*62	6,118
Louisiana	32	-----	5	-----	-----	-----	-----	-----	-----	-----
Texas	19	12	16	2	5	9	7	317,045	143	221,710
Arkansas	31	22	23	50	35	75	0	0	0	0
Tennessee	42	20	31	40	8	24	5	331,423	33	1,004,312
West Virginia	42	27	38	45	18	27	0	0	0	0
Kentucky	45	15	36	49	7	21	11	767,455	43	1,784,779
Ohio	50	23	45	57	15	40	6	1,308,001	58	2,255,174
Michigan	47	24	44	60	17	43	8	1,257,592	75	1,676,789
Indiana	52	17	36	56	10	28	6	1,238,846	66	1,877,039
Illinois	55	16	43	61	12	31	6	1,720,089	54	3,185,350
Wisconsin	44	34	50	57	28	54	20	1,779,790	96	1,853,948
Minnesota	45	26	51	58	21	45	13	6,057,878	83	7,298,648
Iowa	60	31	47	65	17	36	6	688,389	79	871,378
Missouri	47	17	36	51	11	24	14	2,323,226	62	3,747,139
Kansas	49	16	34	50	9	29	4	1,231,778	25	4,927,112
Nebraska	59	28	55	58	15	28	4	775,624	54	1,436,340
South Dakota	60	27	56	63	23	39	6	1,655,007	89	1,859,558
North Dakota	25	18	46	-----	12	27	12	3,581,820	40	8,954,550
Montana	20	20	42	-----	12	-----	50	602,120	125	481,696
Wyoming	50	32	36	-----	-----	-----	*10	22,413	*62	36,150
Colorado	25	20	38	-----	20	39	20	559,436	70	799,194
New Mexico	32	21	46	-----	-----	-----	*10	81,810	*62	131,952
Arizona	30	20	-----	-----	29	72	47	1,317,764	*62	53,790
Utah	25	30	43	-----	-----	-----	*10	18,003	*62	1,830,228
Nevada	30	16	-----	-----	-----	-----	*10	-----	-----	29,037
Idaho	22	22	44	-----	-----	-----	*10	240,411	*62	387,760
Washington	20	11	25	0	9	10	6	501,492	10	5,014,920
Oregon	12	15	24	0	7	10	19	1,946,957	64	3,042,120
California	25	9	20	0	5	-----	15	6,764,579	96	7,046,436
Oklahoma	29	12	-----	20	7	20	3	78,053	150	52,035
Total	51.0	20.6	44.2	54.8	14.5	37.2	9.7	41,352,800	61.4	67,300,642

* For States not reporting, a percentage approximating the general value is supplied.

THE WHEAT CROP OF THE WORLD.

The following table contains an estimate of the world's wheat crop, by countries, for the years 1891 to 1896, the latest official returns, either preliminary or final, for the different countries having been used wherever available. In some important wheat-growing countries, however, official returns of wheat production are not made; in such cases commercial estimates have been used.

The Winchester bushel, having a capacity of 2,150.42 cubic inches, has been taken as the unit of measure, and where the original quantities are stated by weight they have been reduced to bushels on the somewhat arbitrary standard of 60 pounds per bushel.

The figures for the countries in the Southern Hemisphere, where the wheat harvest takes place from November to February, are for the twelve months ending October 31, for the years indicated.

Although the total wheat crop of the world is 116,000,000 bushels less than that of last year, the crop is larger than earlier estimates indicated. This is largely due to an increase of 59,000,000 bushels in European Russia, as shown in the final estimate of the central statistical bureau over the November estimate of the minister of agriculture of that country.

Wheat crop of the world, 1891 to 1896.

Countries.	1891.	1892.	1893.	1894.	1895.	1896.
United States.....	Bushels. 611,780,000	Bushels. 515,949,000	Bushels. 396,132,000	Bushels. 460,267,000	Bushels. 467,103,000	Bushels. 427,684,000
Canada:						
Ontario.....	33,611,000	29,690,000	22,416,000	20,507,000	18,183,000	19,184,000
Manitoba.....	23,923,000	14,909,000	16,108,000	17,714,000	32,777,000	14,825,000
Rest of Canada.....	5,101,000	5,102,000	4,126,000	6,362,000	6,500,000	6,800,000
Total Canada.....	62,635,000	49,701,000	42,650,000	44,583,000	57,460,000	40,809,000
Mexico.....	15,000,000	14,000,000	15,000,000	18,000,000	14,000,000	8,000,000
Total North America.....	689,415,000	579,650,000	453,782,000	522,850,000	538,563,000	476,493,000
Argentina.....	32,000,000	36,000,000	57,000,000	80,000,000	60,000,000	48,000,000
Uruguay.....	2,805,000	3,292,000	5,703,000	8,915,000	10,000,000	6,000,000
Chile.....	18,000,000	16,500,000	19,000,000	16,000,000	15,000,000	12,000,000
Total South America.....	52,805,000	55,792,000	81,703,000	104,915,000	85,000,000	66,000,000
Austria.....	41,074,000	50,174,000	43,660,000	48,190,000	41,767,000	43,991,000
Hungary.....	139,294,000	142,558,000	158,425,000	141,858,000	146,000,000	150,660,000
Croatia-Slavonia.....	6,597,000	7,071,000	8,223,000	8,786,000	6,200,000	8,000,000
Bosnia-Herzegovina.....	1,800,000	2,000,000	2,000,000	2,000,000	2,000,000	2,050,000
Total Austria-Hungary.....	188,765,000	201,803,000	212,308,000	200,834,000	195,967,000	204,701,000
Montenegro.....	220,000	250,000	250,000	250,000	220,000	220,000
Servia.....	8,000,000	10,000,000	8,631,000	7,500,000	9,400,000	9,300,000
Roumania.....	48,491,000	63,942,000	60,115,000	43,587,000	68,503,000	69,200,000
Turkey in Europe.....	22,500,000	20,000,000	20,000,000	20,000,000	21,500,000	24,000,000
Bulgaria.....	40,902,000	40,441,000	35,987,000	30,600,000	37,000,000	45,600,000
Greece.....	5,675,000	4,500,000	6,500,000	5,500,000	4,000,000	4,800,000
Italy.....	141,466,000	115,685,000	135,227,000	121,595,000	106,181,000	132,000,000
Spain.....	71,349,000	82,288,000	93,484,000	105,600,000	92,000,000	83,000,000
Portugal.....	7,000,000	6,000,000	5,500,000	9,000,000	7,000,000	5,600,000
France.....	219,261,000	310,836,000	277,509,000	347,537,000	339,129,000	337,823,000
Switzerland.....	2,500,000	4,000,000	3,300,000	4,500,000	5,000,000	4,800,000
Germany.....	85,750,000	116,215,000	110,040,000	110,681,000	103,159,000	106,140,000
Belgium.....	16,500,000	19,500,000	17,300,000	19,800,000	18,000,000	17,216,000
Netherlands.....	3,504,000	5,380,000	4,971,000	4,346,000	5,000,000	5,400,000
Denmark.....	4,666,000	4,964,000	4,661,000	4,162,000	4,591,000	4,340,000
Sweden.....	4,341,000	4,343,000	3,893,000	4,467,000	3,798,000	4,671,000
Norway.....	250,000	250,000	275,000	275,000	260,000	300,000
Great Britain.....	74,401,000	60,407,000	50,800,000	61,038,000	38,348,000	58,851,000
Ireland.....	2,615,000	2,214,000	1,666,000	1,532,000	1,109,000	1,191,000
Total United Kingdom.....	77,016,000	62,621,000	52,466,000	62,570,000	39,457,000	60,042,000

Wheat crop of the world, 1891 to 1896—Continued.

Countries.	1891.	1892.	1893.	1894.	1895.	1896.
Russia (50 governments).....	Bushels. 168,767,000	Bushels. 241,611,000	Bushels. 371,851,000	Bushels. 339,667,000	Bushels. 292,271,000	Bushels. 300,424,000
Poland (10 governments).....	12,683,000	24,444,000	21,603,000	16,749,000	17,387,000	19,477,000
North Caucasus (3 governments).....	72,000,000	71,402,000	68,307,000	61,679,000	67,127,000	45,149,000
Finland.....	126,000	113,000	100,000	130,000	100,000	98,000
Total Russia in Europe	253,576,000	337,570,000	461,861,000	418,225,000	376,885,000	365,148,000
Total Europe	1,201,732,000	1,410,588,000	1,514,298,000	1,521,029,000	1,437,050,000	1,484,301,000
Transcaucasia (7 governments).....	46,747,000	47,000,000	47,000,000	47,000,000	47,000,000	42,000,000
Western Siberia (2 governments).....	10,000,000	15,000,000	19,997,000	30,608,000	26,020,000	22,590,000
Central Siberia and Central Asia (6 governments)	8,000,000	10,000,000	10,000,000	10,000,000	10,479,000	10,410,000
Total Russia in Asia.....	64,747,000	72,000,000	76,997,000	87,608,000	83,499,000	75,000,000
British India.....	256,704,000	206,640,000	268,539,000	252,784,000	234,379,000	181,997,000
Asiatic Turkey.....	45,000,000	44,000,000	48,000,000	45,000,000	46,000,000	44,000,000
Persia.....	20,630,000	18,567,000	20,000,000	22,000,000	22,000,000	20,000,000
Japan	18,277,000	15,741,000	16,848,000	20,310,000	16,500,000	16,000,000
Cyprus	2,000,000	2,000,000	2,000,000	2,000,000	2,200,000	2,400,000
Total Asia.....	407,358,000	358,948,000	432,384,000	429,702,000	404,578,000	339,397,000
Egypt	11,140,000	8,252,000	10,000,000	12,000,000	14,000,000	12,000,000
Tunis	7,000,000	8,000,000	4,000,000	10,700,000	7,500,000	5,600,000
Algeria	26,184,000	19,979,000	20,274,000	28,900,000	24,800,000	17,600,000
Cape Colony.....	2,813,000	3,500,000	4,014,000	3,195,000	2,542,000	3,200,000
Total Africa.....	47,137,000	39,731,000	38,288,000	54,795,000	48,842,000	38,400,000
New South Wales	3,764,000	4,089,000	7,032,000	6,708,000	7,263,000	5,359,000
Victoria	13,153,000	14,110,000	15,282,000	15,736,000	11,807,000	5,848,000
South Australia	9,696,000	6,639,000	9,531,000	14,047,000	8,027,000	6,116,000
Western Australia	480,000	305,000	443,000	537,000	176,000	194,000
Tasmania.....	663,000	967,000	1,051,000	863,000	899,000	1,202,000
New Zealand	5,904,000	10,581,000	8,642,000	5,046,000	3,727,000	7,059,000
Queensland.....	215,000	405,000	477,000	426,000	562,000	128,000
Total Australasia	33,875,000	37,096,000	42,458,000	43,360,000	32,461,000	25,906,000

RECAPITULATION BY CONTINENTS.

North America	689,415,000	579,650,000	453,782,000	522,850,000	538,563,000	476,493,000
South America	52,805,000	55,792,000	81,703,000	104,915,000	85,000,000	66,000,000
Europe	1,201,732,000	1,410,588,000	1,514,298,000	1,521,029,000	1,437,050,000	1,484,301,000
Asia.....	407,358,000	358,948,000	432,384,000	429,702,000	404,578,000	339,397,000
Africa	47,137,000	39,731,000	38,288,000	54,795,000	48,842,000	38,400,000
Australasia.....	33,875,000	37,096,000	42,458,000	43,360,000	32,461,000	25,906,000

Grand total..... 2,432,322,000 2,481,805,000 2,562,913,000 2,676,651,000 2,546,494,000 2,430,497,000

GENERAL NOTES.

The winter has been milder than the average, and the snowfall, though deficient, has been more satisfactory than the winter preceding. Indiana, Illinois, and Missouri, and adjoining States to a less degree, report considerable injury to growing grain by freezes and thaws, but from the rest of the country there is little complaint. Live stock said to be in generally good condition.

REPORT OF EUROPEAN AGENT.

GREAT BRITAIN.—The ground is water-logged from heavy rains, and spring sowings have been retarded. February ended with drying weather.

FRANCE.—The condition of plant growth is poorer than a year ago, though it has improved since the end of December. Weather conditions similar to those prevailing in Great Britain have retarded the spring sowings.

GERMANY.—Seeds planted in the autumn have come up in excellent condition. Mild weather beginning in February has expedited spring sowings.

NORWAY AND SWEDEN.—The winter was one of unusual severity. No field work could be done in February on account of snow.

SPAIN.—Reports as to weather and crop conditions are very unfavorable.

ITALY.—The condition of growing crops is generally satisfactory, though unfavorable reports come from Lombardy, Campania, and Sardinia.

GREECE.—Heavy cold rains continued through February. Growing crops are progressing normally.

AUSTRIA.—All reports are entirely favorable.

HUNGARY.—Sharp frosts found the fields unprotected by snow in the southern provinces and along the Danube, but the amount of damage is not known.

ROUMANIA.—The weather has been favorable and vegetation is well advanced.

RUSSIA.—The damage from frost in the southwest provinces is believed to be less than reported last month, but many of the fields affected are being resown. In the south and southeast the ground is too dry to work easily.

ASIA MINOR.—Floods have damaged the barley crop in Smyrna, but a fine crop is looked for elsewhere.

ALGERIA.—Grain sowings have been completed under the most favorable conditions.

